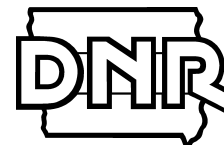


TANK MEMO



TO: Groundwater Professionals

FROM: Iowa Department of Natural Resources
Underground Storage Tank Section
Wallace Building, Des Moines, IA 50319

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The Latest Tier 2 Software: Version 2.17

The latest Tier 2 software is now available free on DNR's web page at: www.state.ia.us/epd/ust/rbca.htm
Version 2.17 must be used after May 1, 1999. This software can read files created in any previous version 2.xx.
Be sure to print all the pages from the new version 2.17.

Changes from 2.14 to 2.17:

- Improved contouring for situations with a sparse number of data points.
- Policy change: Version 2.14 evaluated potential vapor receptors as low risk if they were within 50 feet of the contoured soil data. Version 2.17 implements the policy that they are low risk only if they are within the contoured soil plume itself.
- A convenience item: Under General Groundwater and Soil Plume Contouring, the maximum concentration is shown on the Target Level selection form. This makes it easier to select which target levels to use (select all <= the maximum).
- Some bugs were fixed which were identified by users that can occur in unusual situations.

Installation instructions:

1. The program files are in a single self-extracting zip file, an installation file called T2V217IF.EXE
Download T2V217IF.EXE to an empty directory.
2. Run T2V217IF.EXE by double-clicking on the file name in Explorer. This will extract the setup files for Tier 2 Version 2.17. One of the files will be SETUP.EXE.
3. Run SETUP.EXE to install Tier 2, Version 2.17. This new installation method does not delete or require you to delete previous versions of the software. However, you may do so if you desire. Make sure you only delete the executable file for previous versions, and not any of your data files.

NOTE: These are only the program disk files. Either a previous version of Tier 2 needs to have been installed on the computer, or the system disks need to have been installed. These may be purchased from DNR Records for \$75.

If you are not able to download the software, you may request a copy of the Tier 2 software, Version 2.17 from Sherry Proctor at the DNR, 515-281-8865.

For software questions, please contact LaDon Jones, 375 Town Engineering, Ames, Iowa 50011; (515)-294-6848;
Fax: (515)-294-8216; lcjones@iastate.edu

UST Fund Benefit Deadlines

—from Pat Rounds, administrator for the Iowa UST Fund

The Iowa UST Fund Board has adopted guidelines establishing deadlines for completing corrective action activities if owners and operators want to remain eligible for remedial benefits.

In order to remain eligible for remedial benefits, the owner or operator of a site must comply with all Department of Natural Resource deadlines for submittal of a Tier 1, Tier 2 or corrective action design report, and at a minimum, must submit a Tier 1, or Tier 2 if required, by June 30, 2000. If you have not submitted your Tier 1 or Tier 2 by that date, you will not be eligible for expenses associated with the completion of the Tier 1 or Tier 2 or for corrective action activities required in the future.

The Board also requires that when you receive budget approval, all work associated with that budget must be completed within 180 days of receiving the budget approval. All budgets previously approved must also be completed within 180 days. Activities which are not completed within this time frame will not be reimbursed by the program.

Owners and operators should work closely with their contractor to be sure that all activities will be completed within the required time frames.

Overdue Reports, Acceptable Reports and Certification

The Fund's deadline for reimbursement of expenses incurred while conducting RBCA site evaluations is a little over a year away. Please don't assume DNR will grant evaluation schedule extensions past the Fund's deadline. We intend to screen schedule extension requests very carefully. Schedule extensions past the deadline will only be granted in situations where extenuating circumstances have prevented the timely assessment of the site. Requests for schedule extensions must be well documented and signed by the responsible party and the certified groundwater professional (CGWP). Please plan your work accordingly.

We are in the process of upgrading our LUST site database. The system will improve our site tracking capabilities. As the upgrade proceeds we will be monitoring the overdue projects more closely. CGWPs with significant numbers of **overdue projects** may be subject to a Notice of Deficiency. **A series of Notices may result in the suspension or revocation of a groundwater professional's certificate.**

We also will have the capability of monitoring the **acceptance rate of RBCA reports** for individual CGWPs. CGWPs with a poor report acceptance rate record may be issued a Notice of Deficiency.

If you have questions about any of these items, please contact Jim Humeston at 515/281-8135.

Groundwater Professional Certifications Expire 12/31/99

Iowa DNR will mail renewal applications to all currently certified groundwater professionals in early October. Renewals must:

- be received by Iowa DNR or postmarked by November 1, 1999, and
- be accompanied by the certification fee of \$200, and
- contain proof of completing the continuing education requirements in IAC 134.3(5).

The continuing education requirement for all groundwater professionals is 12 classroom hours in a two-year period, and must be completed prior to the renewal deadline.

If you have questions regarding your CEUs needed for renewal, please contact Sherry Proctor at 515/281-8865; or E-mail: sprocto@max.state.ia.us.

1999 Testing & Training Dates for Groundwater Professionals

Training: The two-day introductory RBCA class is again being offered by LaDon Jones at the Des Moines Area Community College (DMACC) in Ankeny, Iowa. The class, called *The Application of Risk-Based Corrective Action to Petroleum Releases in Iowa*, is being offered April 22-23, July 8-9, and October 7-8, 1999.

Exam: The 1999 schedule for the groundwater professional certification examination includes morning and afternoon options on May 5, July 21, October 20. Your application for certification must be approved by DNR before you can take the test. Contact DMACC to register for the exam at 515-964-6648. (NOTE: The exam is based on the information presented in the introductory RBCA class and on basic geology / hydrogeology principles).

Registration: To register for training or the examination, please contact the Continuing Education Department, Des Moines Area Community College, Ankeny, Iowa 50021-3993; phone: (515) 964-6648.

No More Version 1 of Tier 2

The deadline for switching to Version 2 software for the Tier 2 is long past. No more Version 1 reports or computer files will be accepted for Tier 2 Site Cleanup Reports. Only revised reports which meet the original due date may be submitted in Version 1.

Watch for These Mistakes

Monitoring Plan—T & G wells: The software does NOT automatically select transition (T) and guard (G) wells for the monitoring plan. When you hit [Auto Select], the software only shows which monitoring wells meet T/G criteria—they are NOT selected for the monitoring plan. To identify T & G wells for the monitoring plan, in the screen for “GW Selection of MW locations for Receptors” you must

- hit the [Risk] button,
- go to the table at the bottom of the page, scroll to the right if needed, and
- click under T Well(s) or G Well(s) for the appropriate monitoring wells. This will change the box from “NO” to “YES” and put a T or G in the Monitor column.

If there are no T or G wells in the Monitor column, your SSTL tables and monitoring plan are incomplete.

Monitoring Plan—SL well: Many people are also forgetting to select monitoring wells for soil leaching (SL). (See page 52 of the *Users Manual, Tier 2 Software, Version 2.1.*) On the screen for “Soil Leaching, Monitoring Well Selection in Vicinity of Soil Source(s)”, you need to click on the monitoring wells inside the soil plume (red line) which will turn the labels red. Then later, the software will automatically choose the monitoring well with the highest concentration (inside the soil plume which you selected) to be monitored for the soil leaching pathway.

Residential Vapor Pathways: Even if your site is nonresidential, **you must evaluate the residential vapor pathways** if they are identified on the Preliminary Pathway Evaluation Requirements Page. Many people are forgetting to submit the receptor ID plume map for residential vapor pathways. You must submit these to show that the simulated plume does not cross onto residential property. Any residential property or receptors included in the receptor ID plume must be further evaluated.

SMR and Potential Receptors: Please note the following from page 9 of the SMR Guidance: “**Evaluate all potential receptors within the applicable receptor plume area.** If a Tier 2 SCR has not been completed, evaluate all potential receptors within the specified distance [listed after the question] from the source.” Please be sure you are looking at a large enough area.

Plastic Water Line Surveys: Please check with the local water supplier, not just the public works department for information on plastic water lines. If you send notification forms to a local water supplier, then they are who you should contact about the construction of water lines. We have already had a case where inaccurate information was supplied, because the wrong people were contacted.

Tier 1 Source Option

At Tier 2, the software automatically picks the groundwater maximum using one of two criteria:

- the maximum of the last two (separated by six months) or
- the most recent sample, if steady and declining criteria are met:

The three most recent consecutive groundwater samples must show a steady or declining trend; concentrations cannot increase more than 20 percent from the first of the three samples to the third sample; concentrations cannot increase more than 20 percent of the previous sample; and samples must be separated by at least six months.

It has been decided these criteria may also be used to pick the groundwater maximum at Tier 1.

Submerged Soil Contamination and the Soil Vapor to Enclosed Space Pathway

A storm or sanitary sewer is not considered an actual receptor for this pathway if it can be shown that the sewer is fully and continually submerged in groundwater (Tier 2 -version 2 Guidance, page 34). Similarly, if documentation is provided showing the soil contaminant plume is continually submerged, this pathway is considered incomplete for both actual and potential receptors. Because the groundwater is assumed to be an effective barrier to vapors which originate from the soil source, the Soil Vapor to Enclosed Space pathway is cleared.

Adequate documentation must be provided to show groundwater levels will not likely drop to expose soil contamination which could later result in a vapor problem. Information about variations in seasonal groundwater levels at the site must be included. Also, the soil plume must be laterally defined to the appropriate soil target level, and the vertical extent in relation to groundwater levels well documented (i.e., using PID readings).

The same reasoning, however, **cannot** be applied to the Groundwater Vapor to Enclosed Space Pathway or the Soil Leaching: Groundwater Vapor to Enclosed Space Pathway. For these pathways, vapors are assumed to originate from the groundwater source, (or a predicted groundwater source in the case of soil leaching). Therefore, actual and potential receptors must be evaluated using the standard procedures outlined in the Tier 2-version 2 Guidance document.

Determination of Hydraulic Conductivity

In June 1998, DNR provided a paper titled "Recommended Method for the Determination of Hydraulic Conductivity" to groundwater professionals. This paper outlined specific information needed for DNR to determine if slug tests are conducted in an appropriate manner.

We expect groundwater professionals to provide the following information with all RBCA reports:

- completed hydraulic conductivity (K) data table (page 10 of the Tier 1 report),
- hydraulic conductivity well diagrams, and
- a narrative summary of the slug test itself, including date and time of test, description of the method of slug removal, and method of data collection.
- an explanation why the location and number of wells tested adequately represent K at the site.

For SCR conversions, evaluate previously obtained data to determine if it is adequate to assess the site. If data validity is questioned or has been questioned by DNR, a new slug test should be completed using the procedures outlined in the June 1998 paper. If the groundwater professional believes the previously reported data and K value are valid, this should be stated. If a K value is recalculated, an explanation should be provided to justify the change.

A copy of the original paper may be obtained by contacting James Gastineau at 515/242-6489.

Contaminated Soil From Tank Closures

We recommend proper disposal of contaminated soil from tank closures. Although there is not currently a law to prevent returning contaminated soil to the tank pit, this contamination can serve as a continuing source of contamination to groundwater.

LUST Staff Changes

After several changes in the past year, the DNR staff who review reports for Leaking Underground Storage Tanks are now back up to full force. Their offices are all in Des Moines with 515 area code.

Field Offices 1 & 3 (NE & NW)

Gail George -- 242-6491
Elaine Douskey -- 281-8011
Valerie Drew -- 242-6490

Field Offices 2 & 5 (Central)

James Gastineau -- 242-6489
Bill Gibbons -- 281-8997

Field Offices 4 & 6 (SW & SE)

Verne Schrunk -- 281-6704
Rochelle Shaw -- 242-6488
Tammy VanderBloemen -- 281-8957